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Reg. No. :

Code No. : 11105

Sub. Code : GMCS 21/
GMSE 21

B.Sc.(CBCS) DEGREE EXAMINATION, APRIL 2013.

Second Semester

Computer Science – Main

Paper II — OBJECT ORIENTED PROGRAMMING
WITH C++

(Also common to Software Engineering)

(For those who joined in July 2012 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answers.

1. The _____ operator separates the function definition from the body of the class.
- (a) Scope resolution (b) Size operator
- (c) Conditional (d) None of these

2. The new operator
- (a) Allocates memory (b) Release memory
- (c) Both (a) and (b) (d) None
3. The statement which requires at least one statement followed by it is
- (a) Default (b) Continue
- (c) Break (d) Else
4. Every expressions always returns
- (a) 0 or 1 (b) 1 or 2
- (c) -1 or 0 (d) None
5. _____ is the concept by which the properties of one class are available to another.
- (a) Encapsulation (b) Inheritance
- (c) Polymorphism (d) Dynamic Binding
6. In a _____, only one copy of the base class is inherited by subclasses.
- (a) Derived class (b) Base class
- (c) Virtual Base class (d) None



7. _____function can be a friend of another class.

- (a) Inline (b) Friend
- (c) Virtual (d) All the above

8. Run time Entity of class is _____.

- (a) Object (b) Constants
- (c) Function (d) All the above

9. Encapsulation means _____.

- (a) Data hiding
- (b) Protecting data
- (c) Allowing global access
- (d) Both (a) and (c)

10. The class is declared virtual when _____.

- (a) Two or more classes involved inheritance have common base class
- (b) More than one class is derived
- (c) To prevent a base class from inheritance
- (d) None of these

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

11. (a) Describe structures in C++ and classes in C++.

Or

(b) What do you mean by member function? Explain its characteristics.

12. (a) Describe the characteristics of constructors and destructors.

Or

(b) Write a program with multiple constructors for the single class and brief the logic.

13. (a) Write a Program to overload-operator.

Or

(b) Write a program to overload unary operator using friend function.

14. (a) What do you mean by pointers? Explain its features.

Or

(b) Explain this pointer with an example program.



15. (a) What is File Streams classes? Explain.

Or

- (b) Describe file opening modes.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

16. (a) What do you mean by friend function and write a program to exchange values between two classes. Using friend function.

Or

- (b) Describe overloading main () and member functions. Give example programs.

17. (a) Write a program to invoke constructor and destructor. Also explain the concepts.

Or

- (b) Write a program to call constructor recursively. Calculate factorial of a given number.

18. (a) Explain the types of Inheritance.

Or

- (b) Explain the significance of operator overloading. Give example.

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19. (a) Write a program to declare variables and pointers as members of class and access them using pointer to members to find the Biggest of given three numbers.

Or

- (b) Write a program to access members of base and derived classes using pointer objects of both classes and find the smallest of given three numbers.

20. (a) Describe the steps of file operators.

Or

- (b) Describe file pointers and manipulators.

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